Acta Zootaxonomica Sinica, 34 (3): 415 - 422 (July, 2009) ISSN 1000-0739
动物分类学报

A NEW SPECIES OF MACRONYSSUS (MESOSTIGMATA, MACRONYSSIDAE) FROM CHINA WITH REDESCRIPTION OF MACRONYSSUS RADOVSKYI

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Abstract In present paper, a new species and a new record species from China in the genus *Macronyssus* Kolenati, 1858 are described. *Macronyssus pararadovskyi* sp. nov. was found on the *Tylonycteris robustula* (Thomas, 1915) and *Macronyssus radovskyi* (Domrow, 1963) on the *Tylonycteris pachypus* (Temminck, 1840) in Guangxi, China.

Key words Mesostigmata, Macronyssidae, *Macronyssus*, new species, bat, China.

The genus *Macronyssus* Kolenati, 1858 is one of the thriving genera among parasitic mesostigmatids on bats. Radovsky (1967) reviewed known species of *Macronyssus* worldwide before 1960s. So far, there are about 48 species in the genus worldwide, 18 of which were recorded from China. This paper adds another species and a first record species from China.

Specimens were originally deposited in 70 % ethanol and were later mounted in Hoyer's medium. Drawing was made with a phase contrast microscope with drawing tube (Leica, Germany). The nomenclature for idiosomal chaetotaxy follows Lindquist and Evans (1965). All measurements are in micrometers (μm).

The following abbreviations and terms are used in text. c. s., gnathosomal setae. gen., pigynial setae. hyp. 1-3, hypostomals setae. j1-6, J1-5, dorsal series setae. p. 1-2, sternal fissures. pan., adanal setae. pon., postanal setae. px1-3, posterior accessories setae. s1-6, S1-5, lateral series setae. st. 1-4, sternal setae. z1-6, Z1-5, median series setae.

Macronyssus radovskyi (Domrow, 1963) (Figs. 1-11)

Ichoronyssus radovskyi Domrow, 1963: 204.
Macronyssus radovskyi (Domrow, 1963): Radovsky, 1966: 94, 1967: 140.

Diagnosis. Female dorsal plate with 26 pairs of setae. Z3 and J4 absent. Anterior and lateral setae large, submedian setae slender and very short. z4-z5 ratio of length about 8 ∶1. Sternal glands with strongly sclerotized margins except laterally, surface granular or with numerous minute denticles. St. 1 not reaching posterior margin of sternal plate. Epigynial plate without accessory setae on the plate margins. Epigynial setae located approximately at posterior 1/3 of epigynial plate. Ventral opisthosomal setae much smaller than setae of unarmed dorsum. Peritremal plate terminating forward to the backside of coxa Ⅰ. Coxa Ⅱ with strong spur. Movable digit with a well sclerotized, pointed, thorn-like tip.

Male ventral armature divided into sterno-genito-ventral plate and anal plate, including four pairs of sternal setae and 18 other setae.

Female. Idiosoma broadly ovoid in prosomal portion, with enlarged opisthosoma. Dorsum (Fig. 1). Dorsal plate oblong-oval, small and narrow; with reticulate sculpturing over entire plate. With 26 pairs of setae and 10 pairs of pores. Z4-z5 ratio of length about 8 ∶1. Z3 and J4 absent, j4, j5, z5, j6, J1, J2, J3, px1 and Z4 very short. J5 as microsetae. Unarmed dorsum with approximately 24 pairs of setae.

Venter (Fig. 2). Tritosternum short, with one pair of laciniae bearing a few denticles. Weakly sclerotized cuticle present between tritosternum and sternal plate. Posterior margin of sternal plate indistinct, with inconspicuous sculpturing. Posterior margin of sternal plate embowed forwards but not reaching to level of st. 2. St. 1 not reaching posterior margin of plate. Sternal glands very close to anterior plate margin, roughly oval with well sclerotized margins except laterally, and with surface granular or covered with slender, closely packed denticles. With two pairs of fissures (p. 1 and p. 2), p. 1 crenellation, p. 2 lie between st. 2 and st. 3. Epigynial plate with developed scale-like sculpturing, at the same time, rather narrow, tough-like, with a abruptly and bluntly pointed tip, lateral margins slightly concave at level of epigynial setae. Without weakly sclerotized extension of tip and accessory setae, as which although three setae very close to plate may be recognized. Anal plate conversely pyriform, relatively long and narrow cribrum. With one pair of adanal setae and one single postanal seta. Opisthosoma ventrally with 57-58 pairs of setae, much smaller than setae of unarmed dorsum, caudal setae subequal and moderate in length.

This work was supported by the National Natural Science Foundation of China (30370264).

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Received 3 Nov. 2008, accepted 26 Mar. 2009.

Peritremal plate terminating forward to the backside of coxa Ⅰ, extending backward and circling coxa Ⅳ, and expanding in dorsally middle of coxa Ⅱ.

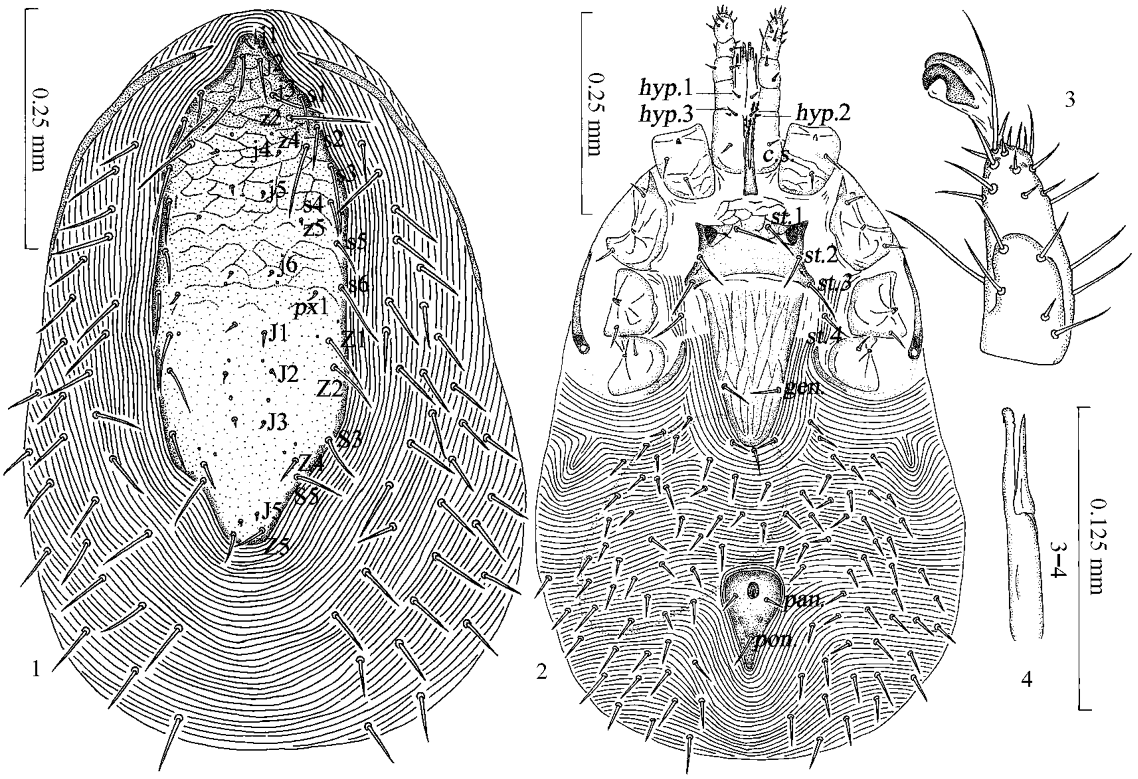
Legs. Legs setation as in Table 1. Coxal ridges distinct on Ⅱ-Ⅳ and strongly developed on coxae Ⅱ and Ⅲ Tibia Ⅰ length-width ratio about 1.15 ∶1.00. Coxa Ⅱ with strong spur. Tarsus Ⅰ setation typical, two setae spindly, others moderate setae and microsetae (Fig. 3).

Table **1.** Leg chaetotaxy of female of M. radovskyi.

leg	Coxa	Trochanter	Femur	Genu	Tibia	Tarsus
Ⅰ	2	1-1/3-1 (6)	2-3/3-2 (10)	2-6/2-2 (12)	2-6/2-2 (12)	4-21/10-4 (39)
Ⅱ	2	1-0/3-1 (5)	2-4/3-1 (10)	2-6/2-1 (11)	2-4/2-2 (10)	3-5/5-3 (16)
Ⅲ	2	1-1/3-0 (5)	1-3/1-1 (6)	2-4/2-1 (9)	2-3/2-1 (8)	3-5/5-3 (16)
Ⅳ	1	1-1/3-0 (5)	1-3/1-1 (6)	2-5/2-1 (10)	2-4/2-2 (10)	3-5/5-3 (16)

Gnathosoma. Deutosternal groove with nine teeth arranged in single file. Fixed digit longer than movable digit (Fig. 4), fixed digit with ventral hooks slender and subequal, dorsodistal process with a free tip. Corniculi with large transparent protuberance extending to genu of pedipalps. Gnathosomal base subrectangular in outline, with three pairs of hypostomals setae and 1 pair of gnathosomal setae. hyp. 1, hyp. 3 slender and subequal. Trochanter-tarsus chaetotaxy formula 2-5-6-10-11 + thin and stalked apoteles.

Measurements. Idiosomal length (624.8-686.0), width at level of genito-ventral region and anal plate (441.0-502.3), dorsal plate length (490.0-529.2), width (186.2-196.0), z4 (78.4-88.2), j4 (7.4-9.8), j5 (7.4-9.8), z5 (9.8-12.3), j6 (12.3-14.7), J1 (19.6-24.5), J2 (14.7-19.6), J3 (9.8-12.3), z5 space (102.9-107.8), S5 (53.9-58.8), Z5 (36.8-39.2), tritosternum length (78.4-83.3), sternal plate length (78.4-80.9), width (156.8-161.7), st. 1 (58.8-68.6), st. 2 (53.9-58.8), st. 3 (58.8-68.6), epigynial plate length (205.8- 215.6), width (66.2-68.6) at level of gen., gen. (36.8-39.2), anal plate length (117.6- 120.1), width (61.3-63.7), pan. (29.4-29.4), pon. (39.2-41.7), peritreme length (284.2-294.0), longest caudal setae (53.9-56.4), gnathosomal base length (63.7-68.6), width (83.3-88.2), chelicerae length (147.0-186.2), fixed digit length (49-49), movable digit length (44.1-44.1), c. s. (24.5-24.5), hyp. 1 (17.2-19.6), hyp. 2 (7.4-7.4), hyp. 3 (22.1-24.5), pedipalps length (176.4-186.2), tarsul length: Ⅰ (85.8-88.2), Ⅱ (83.3-88.2), Ⅲ (93.1-98.0), Ⅳ (120.1-122.5).



Figs. 1-4. Macronyssus radovskyi Domrow. Female. 1. Dorsum. 2. Venter. 3. Tarsus Ⅰ. 4. Fixed and movable digits.

Male. As in female except as noted. Smaller than female.

Dorsum (Fig. 5). Dorsal plate essentially as in female, oblong-oval, with sculpturing over entire plate. 24-25 ratio of length (9.3-9.0) : 1.0. Unarmed dorsum with approximately 16 pairs of setae.

Venter (Fig. 6). Ventral armature divided into sterno-genito-ventral plate and anal plate. The most width at the lever of st. 2, st. 3 with shoulders; including four pairs of sternal setae and 18 other setae. Opisthosoma ventrally with approximately 26 pairs of setae.

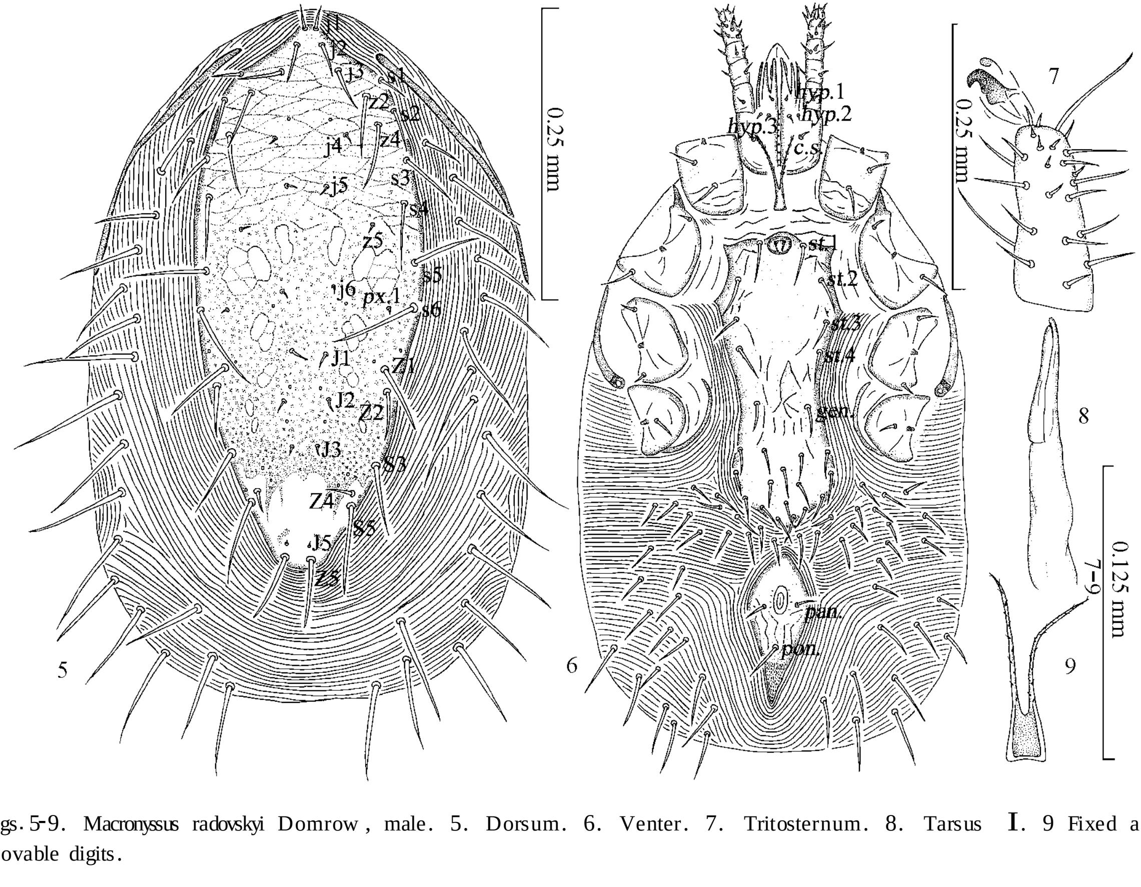
Leg. Legs setation as in Table 2. Tibia I length-width ratio about 1.25 ∶1.00, coxa II with strong spur. Tarsus I as female, two setae spindly, others moderate setae and microsetae (Fig. 7).

Table **2.** Leg chaetotaxy of male of M. radovskyi.

leg	Coxa	Trochanter	Femur	Genu	Tibia	Tarsus
I	2	1-1/3-1 (6)	2-3/3-2 (10)	2-6/2-2 (12)	3-5/3-2 (13)	5-21/9-3 (38)
II	2	1-0/3-1 (5)	2-3/3-1 (9)	2-5/2-1 (10)	2-4/2-2 (10)	3-5/5-3 (16)
III	2	1-0/3-1 (5)	1-3/1-1 (6)	2-4/2-1 (9)	1-3/2-2 (8)	3-5/5-3 (16)
IV	1	1-0/3-1 (5)	1-3/1-1 (6)	2-5/2-1 (10)	1-3/2-2 (8)	3-5/5-3 (16)

Gnathosoma. Deutosternal groove with teeth arranged in single file. Fixed digit longer than movable digit (Fig. 8). Fixed digit with ventral hooks slender and subequal. Spermatodacty1 extending to middle of genu. Corniculi extending to the middle of femur. Gnathosomal base subrectangular in outline, with 3 pairs of hypostomals setae and 1 pair of gnathosoma setae. Trochanter-tarsus chaetotaxy formula 2-5-6-10-11 + thin and stalked apoteles.

Measurements. Idiosomal length 563.5, width 372.4, dorsal plate length 460.6, width 196, z4 68.6, j4 7.4, j5 7.4, z5 7.4, j6 9.8, J1 19.6, J2 12.3, J3 9.8, z5 space, 102.9, S5 76.0, Z5 56.4, tritosternum length 83.3, sternal-genito-ventral plate length 284.2, width at the level of st. 2-st. 3, 122.5, st. 1 36.8, st. 2 36.8, st. 3 39.2, st. 4 39.2, anal plate length 122.5, width 56.4, pan. 24.5, pon. 34.3, peritreme length 274.4, longest caudal setae 78.4, gnathosomal base length 49, width 78.4, chelicerae length 127.4, fixed digit length 49, movable digit length 44.1, spermadactyl length 63.7, c. s. 22.1, hyp. 1, 19.6, hyp. 2, 9.8, hyp. 3, 24.5, pedipalps length 156.8, tarsul length: I 73.5, II 73.5, III 68.6, IV 83.3.



Figs. 5-9. Macronyssus radovskyi Domrow, male. 5. Dorsum. 6. Venter. 7. Tritosternum. 8. Tarsus I. 9 Fixed and movable digits.

Protonymph. Idiosoma oblong-oval.

Dorsum (Fig. 10). Podosomal plate narrow and elongate, with prominence on scapular and temporal and slight protuberance at the mid-posterior. 10 pairs of setae. j1 on unarmed integument anterior to plate. Pygidial plate subpentagonal, with six pairs of setae and one pair of foveae. Unarmed dorsum with approximately 11 pairs of setae.

Venter (Fig. 11). Tritosternum short, with one pair of laciniae bearing a few denticles. Sternal plate conversely pitcher-shaped, with polygon ripples, three pairs of setae. Sternal pores inconspicuous. Anal plate conversely pyriform, rounder and flat anteriorly, narrow and elongate posteriorly, with one pair of adanal setae, one single postanal seta. Opisthosoma ventrally with five pairs of setae. Peritremal plate very short, terminating forward to the backside of coxa Ⅲ, extending backward and circling coxa Ⅳ.

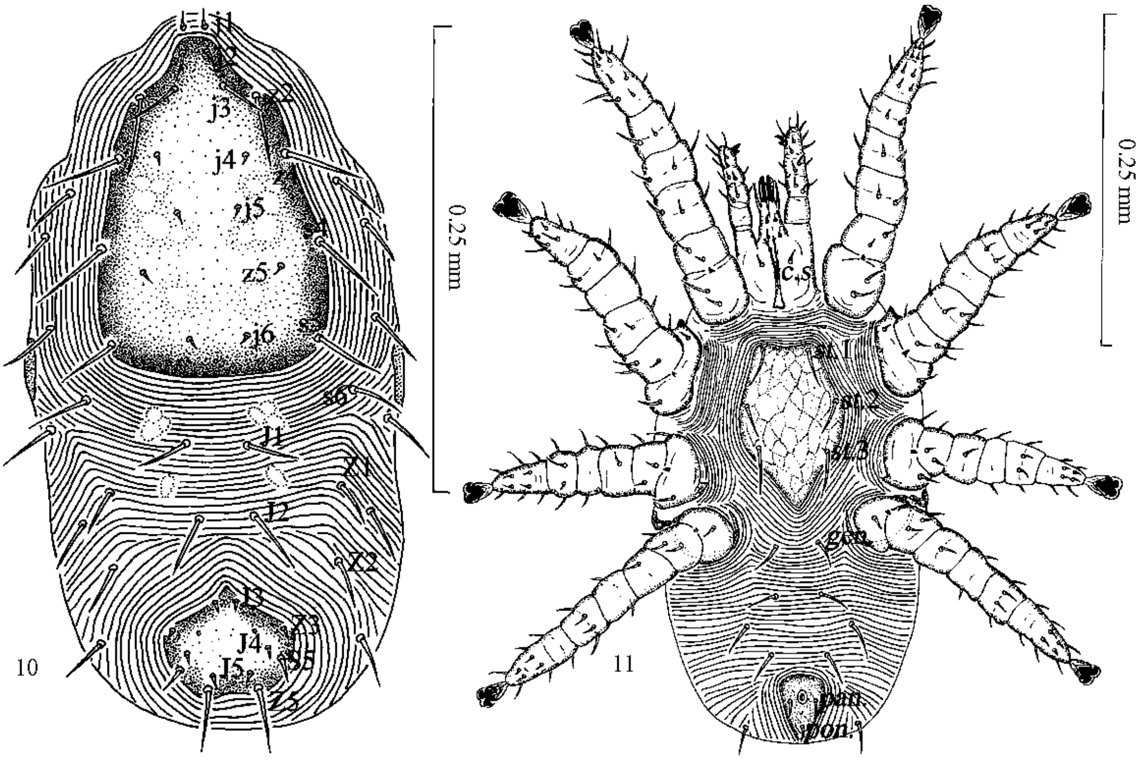
Leg. Legs setation as in Table 3. The spur on coxa Ⅱ very short.

Table **3.** Leg chaetotaxy of Protonymph of M. radovskyi.

leg	Coxa	Trochanter	Femur	Genu	Tibia	Tarsus
Ⅰ	2	1-0/2-1 (4)	2-4/1-2 (9)	1-4/1-2 (8)	1-4/1-2 (8)	3-15/6-4 (28)
Ⅱ	2	1-0/2-1 (4)	1-4/2-1 (8)	1-4/0-1 (6)	1-3/1-1 (6)	3-5/4-3 (15)
Ⅲ	2	1-1/2-0 (4)	1-3/1-0 (5)	1-4/0-1 (6)	1-3/2-1 (7)	3-5/4-3 (15)
Ⅳ	1	1-1/2-0 (4)	0-3/1-0 (4)	1-4/0-0 (5)	1-3/2-1 (7)	3-5/4-3 (15)

Gnathosoma. Gnathosomal base subrectangular in outline, with 3 pairs of hypostomals setae and 1 pair of gnathosoma setae. Trochanter-tarsus chaetotaxy formula 1-4-5-8-10 + thin and stalked spoteles.

Measurements. Idiosomal length (382.2-392.0), width (200.9-205.8), podosomal plate length (161.7-164.2), width (120.1-122.5), pygidial plate length (51.5-53.9), width (61.3-63.7), z4 (44.1-49.0), j4 2.5, j5 4.9, z5 7.4, j6 7.4, J1 24.5, J2 (27.0-29.4), J3 4.9, z5 space (68.6-78.4), Z4 7.4, J5 2.5, S5 (19.6-24.5), Z5 (31.9-36.8), tritosernum length 63.7, genital plate length (100.1-107.8), width (71.1-78.4), st. 1 (36.8-39.2), st. 2 (29.4-34.3), st. 3 (31.9-34.3), anal plate length (41.7-44.1), width (31.9-34.3), pan. (14.7-17.2), pon. 14.7, gnathosomal base length 14.7, width 34.3, movable digit length 19.6, fixed digit length 17.2, c. s. 12.3, hyp. 1, 4.9, hyp. 2, 2.5, hyp. 3, 4.9, pedipalps length 108.7, tarsul length: Ⅰ 49, Ⅱ 44.1, Ⅲ 44.1, Ⅳ 53.9.



Figs. 10-11. *Macronyssus radovskyi* Domrow. Protonymph. 10. Dorsum. 11. Venter.

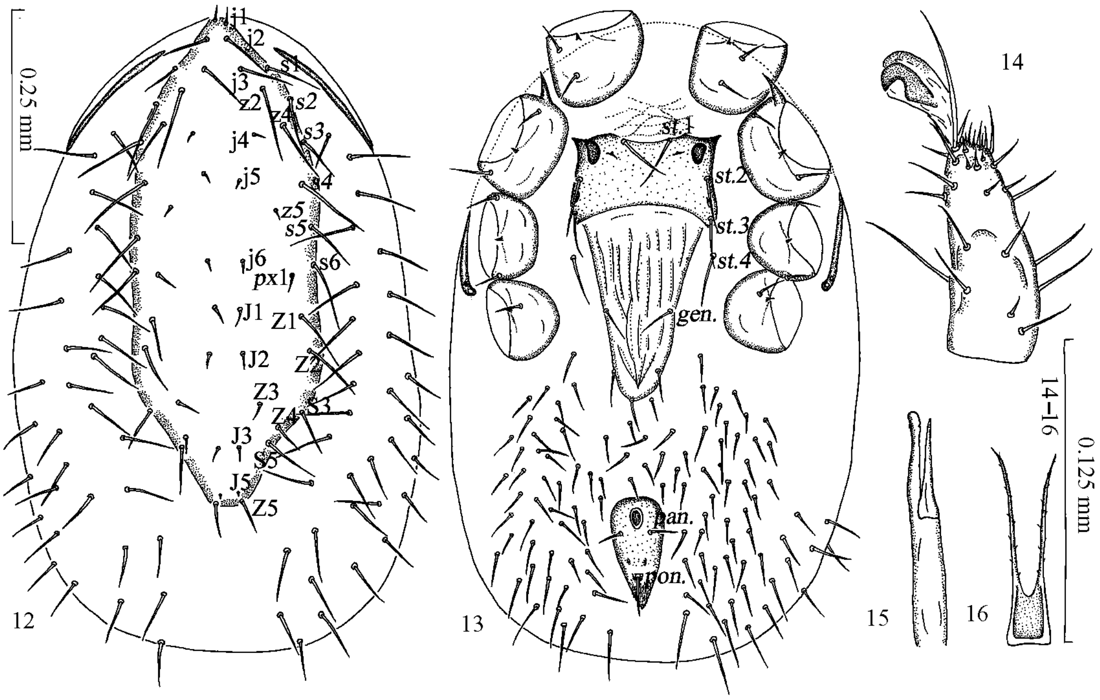
Material examined. 3 ♀♀, 1 ♂, 2 protonymphs, 9 Mar. 2004, on Longzhou (22°12′-22°42′N, 106°56′-107°42′E), Guangxi Zhuang Autonomous Region, ZHANG Li-Biao. All specimens are deposited in the Institute of Entomology, Guizhou University. The hosts of all specimens are *Tylonycteris pachypus* (Temminck, 1840).

Distribution. China (Guangxi), T. pachypus. Malaysia (Pahang), small brown bat.

Remarks. In females, epigynial plate has no accessory setae, although three setae are very close to the plate. Male ventral armature divided into sterno-genito-ventral plate and anal plate. Domrow (1963) noted M. radovskyi female genitoventral shield with three usurped ventral setae (arranged 2 + 1) either on or virtually on the shield posteriorly. Male holoventral shield constricts rapidly to a narrow neck, so that the anal shield is virtually free. All examined specimens are otherwise resemble M. radovskyi, so we assigned them to that species. In addition, female and male segmental chaetotaxy of legs are added to be described, and the protonymph is first described.

Macronyssus pararadovskyi Tian, Jin et Zhang, sp. nov. (Figs. 12-21)

Diagnosis. Female dorsal plate roughly oval, with 27 pairs of setae and eight pairs of pores. J4 absent, Z3 present. Anterior and lateral setae large, submedian setae slender and very short z4-z5 ratio about 8.5 ∶1.0. Sternal glands very close to anterior margin of sterna plate, and roughly oval with well sclerotized margins except lateral part, with surface granular or covered with slender, closely packed denticles. St.1 not reaching posterior margin of plate. Epigynial plate with three accessory setae, or with one single accessory seta and one pair of setae very close to plate near the tip. epigynial setae located almost at the middle of epigynial plate. Ventral opisthosomal setae much smaller than setae of unarmed dorsum. Peritreme terminating over coax I. Coxa II with strong spur. Movable digit with a well sclerotized, pointed, thorn-like tip.



Figs. 12-16. M. pararadovskyi Tian, Jin et Zhang, sp. nov. female. 12. Dorsum. 13. Venter. 14. Tarsus I. 15. Fixed and movable digits. 16. Tritosternum.

Male ventral armature divided into sterno-genito-ventral plate and anal plate, including four pairs of sternal setae and 20 other setae.

Female. Idiosoma broadly ovoid in prosomal portion, with enlarged opisthosoma.

Dorsum (Fig. 12). Dorsal plate oblong-oval, small and narrow, posterior of plate producing typical shape. With reticulate sculpturing over entire plate. With 27 pairs of setae and eight pairs of pores on plate. z4-z5 ratio of length 8.5 ∶1.0. J4 absent, Z3 present, j4, j5, z5, j6, J1, J2, J3, I and Z4 very short. J5 as microsetae. Unarmed dorsum with approximately 35 pairs of setae.

Venter (Fig. 13). Tritosternum short, with one pair of laciniae bearing a few denticles (Fig. 16). Weakly sclerotized cuticle present between tritosternum and sternal plate. Sternal plate with developed sculpturing. posterior margin of plate embowed forwards and nearly reaching level of st. 2. st. 1 extending beyond posterior margin of plate. Sternal glands very close to anterior plate margin, roughly oval with well sclerotized margins except lateral part, with surface granular or covered with slender, closely packed denticles. With two pairs of lyriform fissures (p. 1 and p. 2), p. 1 crenellation, p. 2 between st. 2 and st. 3. Epigynial plate rather narrow, lateral margins slightly concave at level of epigynial setae, narrowed abruptly near posterior end, with bluntly pointed tip. Without weakly sclerotized extension of the tip. With three accessory setae, or with one single accessory seta and one pair of setae very close to plate near tip. Scale-like sculpturing of plate strongly developed. Anal plate conversely pyriform, with rounded anterior margin, well defined anterior angles, relatively long and narrow cribrum. Opisthosoma ventrally approximately with 57 pairs of setae, much smaller than setae of unarmed dorsum, caudal setae of moderate length and subequal. Peritremal plate terminating forward to the backside of coxa Ⅰ, extending backward and circling coxa Ⅳ, and expanding in dorsally middle of coxa Ⅱ.

Legs. Legs setation as in Table 4. Coxal ridges distinct on HⅣ and strongly developed on coxae Ⅱ and Ⅲ Tibia Ⅰ length-width ratio about 1∶1. Coxa Ⅱ with strong spur. Tarsus Ⅰ setation typical, two setae spindly, others moderate setae and microsetae (Fig. 14).

Table **4.** Leg chaetotaxy of M. pararadovskyi Tian, Jin et Zhang, sp. nov., female.

Leg	Coxa	Trochanter	Femu	Genu	Tibia	Tarsus
Ⅰ	2	1-1/3-1 (6)	2-4/4-2 (12)	2-6/3-2 (13)	2-6/3-2 (13)	5-22/8-4 (38)
Ⅱ	2	1-0/3-1 (5)	2-5/3-1 (11)	2-5/2-2 (11)	2-4/2-2 (10)	3-5/5-3 (16)
Ⅲ	2	1-1/3-0 (5)	2-3/1-1 (7)	2-4/2-1 (9)	2-3/2-1 (8)	3-5/5-3 (16)
Ⅳ	1	1-1/3-0 (5)	0-3/2-1 (6)	2-5/2-1 (10)	2-4/2-2 (10)	3-5/5-3 (16)

Gnathosoma. Deutosternal groove with 10 teeth arranged in single file. Fixed digit longer than movable digit (Fig. 15), fixed digit with two ventral hooks slender and subequal, dorsodistal without hooks. Corniculi with large transparent protuberance extending to genu of pedipalps. Gnathosomal base subrectangular in outline, with three pairs of hypostomals setae and one pair of gnathosomal setae. hyp. 1, hyp. 3 slender and subequal. Trochanter-tarsus chaetotaxy formula 2-5-6-11-14 + thin and stalked apoteles.

Measurements. Idiosomal length (563.5-686.0), width at level of genito-ventral region and anal plate (333.2-490.0), dorsal plate length (470.4-490.0), width (186.2-196.0), z4 (58.8-83.3), j4 (4.9-7.4), j5 (4.9-7.4), z5 (7.4-9.8), j6 (7.4-9.8), J1 (12.3-19.6), J2 (12.3-14.7), J3 (7.4-9.8), z5 space (98-102.9), S5 (24.5-53.9), Z5 (24.5-36.8), tritosternum length (102.9-132.3), sternal plate length (41.7-80.9), width (137.2-161.7), st. 1 (49.0-58.8), st. 2 (58.8-58.8), st. 3 (58.8-63.7), epigynial plate length (196.0-235.2), width (68.6-73.5) at level of gen., gen. (31.9-39.2), anal plate length (93.1-110.3), width (53.9-63.7), pan. (19.6-29.4), pon. (34.3-41.7), peritreme length (274.4-294.0), longest caudal setae (53.9-58.8), gnathosomal base length (49.0-68.6), width (78.4-88.2), fixed digit (49-49), movable digit (44.1-39.2), c. s. (19.6-19.6), hyp. 1 (9.8-14.7), hyp. 2 (7.4-9.8), hyp. 3 (24.5-27.0), pedipalps length (122.5-134.8), tarsul length: Ⅰ (93.1-93.1), Ⅱ (88.2-88.2), Ⅲ (80.9-88.2), Ⅳ (110.3-112.7).

Male. Idiosoma broadly ovoid in prosomal portion, with enlarged opisthosoma.

Dorsum (Fig. 17). Dorsal plate oblong-oval, small and narrow. With reticulate sculpturing over entire plate. With 27 pairs of setae and some pairs of pores on plate. z4-z5 ratio of length 8.5∶1.0. J4 absent, Z3 present, j4, j5, z5, j6, J1, J2, J3, px1 and Z4 very short. J5 as microsetae. Unarmed dorsum with approximately 20 pairs of setae.

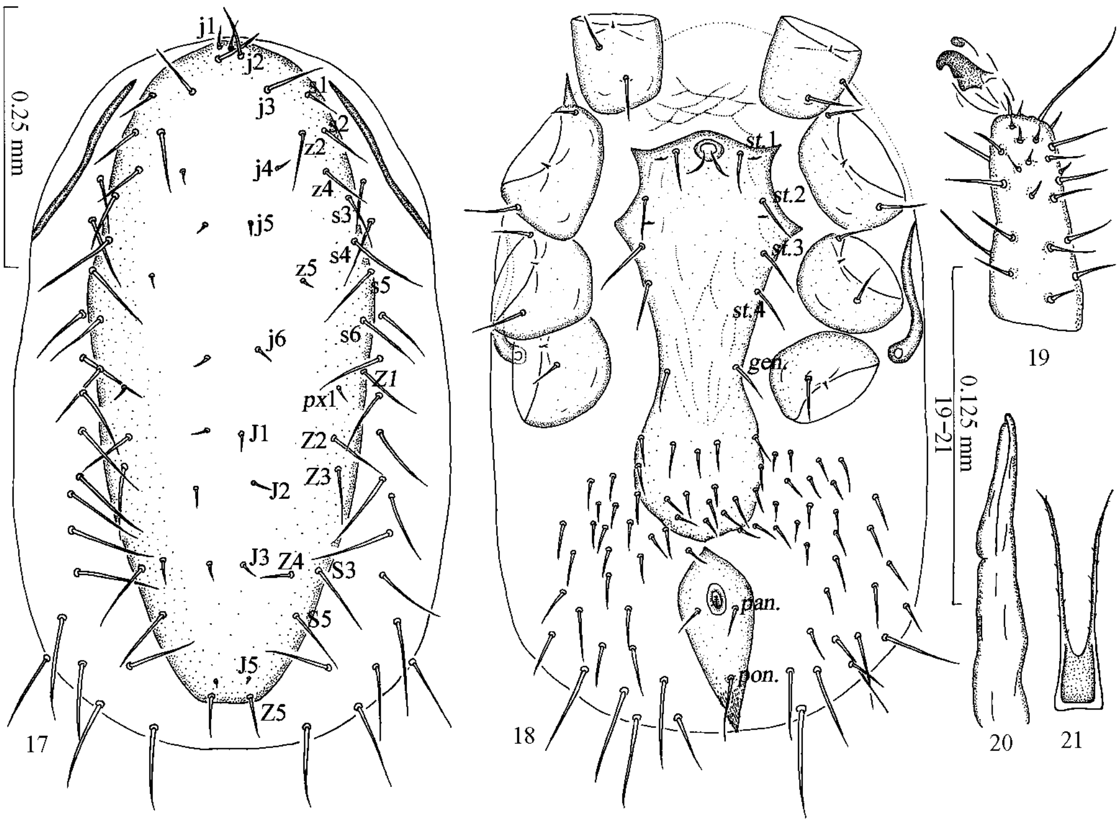
Venter (Fig. 18). Tritosternum short, with one pair of laciniae bearing a few denticles (Fig. 21). With weakly sclerotized cuticle present between tritosternum and sternal plate. Ventral armature divided into sterno-genito-ventral plate and anal plate. The most width at the lever of st. 2, st. 3 with shoulders. Including four pairs of sternal setae and 20 other setae. Anal plate conversely pyriform, with rounder anterior margin and relatively long and narrow cribrum. With one pair of adanal setae (pan.) and one single postanal seta (pon.). Opisthosoma ventrally with approximately 30 pairs of setae. Peritremal plate located at anterior of ventrally trochanter Ⅳ, terminating forward to the backside of coxa Ⅰ, extending backward and circling coxa Ⅳ, and expanding in dorsally middle of coxa Ⅱ.

Leg. Legs setation as in Table 5. Coxal ridges distinct on Ⅱ-Ⅳ and strongly developed on coxae Ⅱ, Ⅲ tibia Ⅰ length-width ratio about 1∶1, coxa Ⅱ with strong spur. Tarsus I as female, two setae spindly, others moderate setae and microsetae (Fig. 19).

Table **5.** Leg chaetotaxy of M. pararadovskyi Tian, Jin et Zhang, sp. nov., male.

Leg	Coxa	Trochanter	Femu	Genu	Tibia	Tarsus
Ⅰ	2	1-1/3-1 (6)	2-4/4-2 (12)	2-6/3-2 (13)	2-6/3-2 (13)	4-20/7-4 (35)
Ⅱ	2	1-0/3-1 (5)	2-5/3-1 (11)	2-5/2-2 (11)	2-4/2-2 (10)	3-5/5-3 (16)
Ⅲ	2	1-1/3-0 (5)	1-3/1-0 (5)	2-4/2-1 (9)	2-3/2-1 (8)	3-5/5-3 (16)
Ⅳ	1	1-1/3-0 (5)	2-3/1-0 (6)	2-5/1-0 (8)	2-4/2-2 (10)	3-5/5-3 (16)

Gnathosoma. Deutosternal groove with 10 teeth arranged in single file. Fixed digit longer than movable digit (Fig. 20). Fixed digit with ventral hooks slender



Figs. 17-21. M. pararadovskyi Tian, Jin et Zhang, sp. nov., male. 17. Dorsum. 18. Venter. 19. Tarsus Ⅰ. 20. Fixed and movable digits. 21. Tritosternum.

and subequal. Gnathosomal base subrectangular in outline, with 3 pairs of hypostomals setae and 1 pair of gnathosoma setae. Trochanter-tarsus chaetotaxy formula 2-5-6-11-12 + thin and stalked apoteles.

Measurements. Idiosomal length (470.4-539.0), width at level of genito-ventral region and anal plate (254.8-313.6), dorsal plate length (450.8-490.0), width (196.0-215.6), z4 (58.8-73.5), j4 (4.9-7.4), j5 (4.9-4.9), z5 (4.9-7.4), j6 (7.4-9.8), J1 (9.8-14.7), J2 (9.8-12.3), J3 (7.4-7.4), z5 space (102.9-102.9), S5 (29.4-93.1), Z5 (36.8-63.7), tritosternum length (88.2-98.0), sternal-genito-ventral plate length (274.4-294.0), width at the level of st. 2-st. 3, (122.5-127.4), st. 1 (36.8-39.2), st. 2 (39.2-41.7), st. 3 (39.2-44.1), st. 4 (34.3-39.2), anal plate length (83.3-122.5), width (49.0-53.9), pan. (22.1-24.5), pon. (29.4-44.1), peritreme length (230.3-245.0), longest caudal setae (93.1-98.0), gnathosomal base length (51.5-68.6), width (73.5-78.4), chelicerae length (102.9-127.4), fixed digit length (51.5-63.7), movable digit length (49-49), spermadactyl length (53.9-63.7), c. s. (9.8-14.7), hyp. 1 (9.8-12.3), hyp. 2 (7.4-9.8), hyp. 3 (12.3-19.6), pedipalps length (156.8-171.5), tarsul length: Ⅰ (73.5-78.4), Ⅱ (73.5-83.3), Ⅲ (78.4-83.3), Ⅳ (93.1-98.0).

Holotype ♀, 9 Mar. 2004, Longzhou (22°12′-22°42′N, 106°56′-107°42′E), Guangxi Zhuang Autonomous Region, ZHANG Li-Biao. Paratypes: 2 ♂♂, 3 ♀♀, 9 Mar. 2004, 5 ♀♀, 22 Feb. 2006, same date as holotype. The specimens are deposited in the Institute of Entomology, Guizhou University, China. The hosts of all specimens are *Tylonycteris robustula* (Thomas, 1915).

Remarks. The new species is close to M. radovskyi, the differences between them are: in the new species, dorsal plate with 27 pairs of setae. Z3 present. Female epigynial plate with 3 accessory setae, or with 1 single accessory seta and 1 pair of setae very close to plate near tip. Male sterno-genito-ventral plate including 4 pairs of sternal setae and 20 other setae. But in M. radovskyi, dorsal plate with 26 pairs of setae. Z3 absent. Female epigynial plate without accessory setae. Male sterno-genito-ventral plate including 4 pairs of sternal setae and 18 other setae.

Acknowledgements We are grateful to Dr. Morales Malacara (Universidad Nacional Autónoma de México, México), WEI Li (School of Life Science, East China Normal University Shanghai, China for their help in many ways.

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中国巨刺螨属一新种和雷氏巨刺螨的重新描述 (中气门目, 巨刺螨科)

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摘 要 记述了采自广西的扁颅蝠 *Tylonycteris robustula* (Thomas, 1915) 体表的寄生革螨 1 新种: 拟雷氏巨刺螨 *Macronyssus pararadovskyi* Tian, Jin et Zhang, sp. nov.。新种与雷氏巨刺螨 *Macronyssus radovskyi* (Domrow, 1963) 近似, 二者的区别在于: 新种背毛有 27 对, 具有 Z3; 雌螨生殖腹板具有 3 根副毛, 或部分标本为 1 根副毛在板的末端, 另 1 对副毛位于板外; 雄螨胸生殖腹板上具有 4 对胸毛和 20 根腹毛。而雷氏巨刺螨背毛有 26 对, 不具有 Z3。雌螨生殖腹板不具有副毛, 即副毛均不在生殖腹板上; 雄螨胸生殖腹板上具有 4 对胸毛和 18 根腹毛。另外, 依据采自广西褐扁颅蝠 *Tylonycteris pachypus* (Temminck, 1840) 体表的标本, 对雷氏巨刺螨 *Macronyssus radovskyi* (Domrow, 1963) 的雌、雄螨成体和第 1 若螨进行了重新描述。所有标本均保存于贵州大学昆虫研究所标本馆。

关键词 中气门目, 巨刺螨科, 巨刺螨属, 新种, 蝙蝠, 中国.

中图分类号 Q959.226

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